

REMARKS

Claim 1 has been amended. No claims have been canceled or added. Accordingly, claims 1, 3-11, 13-15 and 17-26 are currently pending.

I. Rejection of Claims under Section 103

A. 1, 3-6, 8-11, 13-15, 17, 25 and 26

The office action states that claims 1, 3-6, 8-11, 13-15, 17, 25 and 26 are rejected under Section 103 as being unpatentable over the combination of Weber (U.S. Patent No. 5829171) and Morris (U.S. Patent No. 5923496).

The office states that the combination of Weber '171 and Morris '496 teaches the elements of claims 1, 3-6, 8-11, 13-15, 17, 25 and 26.

More specifically, the examiner states the Weber teaches an insole with an etched heater element. This heater element is merely a metal sheet that is etched to form a circuit to be later laminated into an insole. It is also stated that Weber teaches the ability to provide heat to different parts of the element, provides a thermal protection device, termination pads, a fabric face layer and a thermoplastic web. However, the examiner states that Weber does not teach metallised *fabric* to provide the heater circuit structure.

Morris '496 is cited for the missing feature of a metallised fabric to form the heater element. The examiner asserts that it would be obvious under Section 103 to combine Weber and Morris to arrive at applicant's invention.

Applicant submits that the combination rejection under Section 103 is not tenable and should be withdrawn. The teachings of the combination of Weber and Morris are very different from each other and, as a result, cannot be combined. Moreover, the claimed invention calls for a heater element that is flexible and breathable, which is completely unlike the Weber and Morris

devices.

More specifically, Weber teaches an insole construction that includes two thermoplastic layers 24 and 26 with a heater element layer 28 sandwiched therebetween. See Fig. 3, for example. As in Fig. 4 of Weber, the etched heater circuit 20 is fully encapsulated with a thermoplastic polymer material 34. Thus, Weber provides a footwear insole with a completely embedded/encapsulated heater element therein.

Morris teaches a metallised fabric that can be etched to form a circuit thereon. In similar fashion to Weber, Morris completely embeds/encapsulates the etched (fabric) circuit. The key to Morris is the full permeation of resin to the fabric with etched circuit thereon. See Col. 1, 55-64. Thus, a cured polymeric matrix is provided with a fabric circuit fully embedded therein. The encapsulating matrix strengthens the overall laminate while maintaining the needed electrical conductivity. See Col. 2, lines 5-40 of Morris. The goal and desire of both Weber and Morris is to fill up any voids in the circuit to create the laminate construction.

The foregoing is the exact opposite of the goal of the present invention. Throughout the specification, applicant stresses the unique ability of its etched metallised fabric to be breathable because it is porous. This is an important structural feature of a device that is used in a footwear environment, which is commonly moist (due to sweating) and enclosed. The ability to permit airflow for breathability in this environment is critical.

Such breathability cannot possibly be provided by the cited prior art, either alone or in combination with each other. Both Weber and Morris teach fully embedding a circuit within some type of matrix, such as a thermoplastic polymer. As a result, the heat generated by the circuit must also travel through the surrounding matrix as well. It is not surprising that Weber encapsulates its etched metal foil because it requires some type of substrate or carrier for the

circuit. In Morris, it is not surprising that its fabric circuits are completely encapsulated in a solid matrix because those circuits are not for purposes of heating. For example, Morris' circuits are for embedding sensors, identification devices, radar circuits, and the like. See Col. 3. In Morris, there is not concern or need to permit the circuits to remain porous and breathable. Therefore, there is absolutely no motivation for Morris to be incorporated into footwear. Similarly, there is no reason why Weber would want to include Morris' circuit element in its footwear that already completely lacks breathability. Thus, even combining Morris with Weber still fails to teach a heater element that is flexible and breathable. Claim 1 has been amended accordingly to require these structural features, which are not found in Weber and Morris.

Therefore, the cited prior art, even assuming that they are combinable under Section 103, fail to teach claim 1, as amended.

Claims 3-6, 8-11, 13-15, 17, 25 and 26 are dependent claims that depend, either directly or indirectly, on now allowable claim 1. As a result, applicant submits that claims 3-6, 8-11, 13-15, 17, 25 and 26 are now also allowable over the cited prior art.

B. Claims 7 and 24

Claims 7 and 24 are dependent claims that depend, either directly or indirectly, on now allowable claim 1. As a result, applicant submits that claims 7 and 24 are now also allowable over the cited prior art.

C. Claim 18

Claim 18 is dependent on now allowable independent claim 1. As a result, applicant submits that claim 18 is now also allowable over the cited prior art.

D. Claims. 19-23

Claims 19-23 are dependent claims that depend, either directly or indirectly, on now allowable claim 1. As a result, applicant submits that claims 19-23 are now also allowable over the cited prior art.

II. Conclusion

In view of the foregoing, claims 1, 3-11, 13-15, 17-26 are patentably distinct over the cited prior art. Therefore this application is in condition for allowance. Corresponding action is respectfully solicited. The examiner is invited to contact the undersigned should any questions arise.

PTO is authorized to charge any additional fees incurred as a result of the filing hereof or credit any overpayment to our account #02-0900.

Respectfully submitted,

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